

SYSTEMS AND METHODS FOR ENHANCED ERROR CONCEALMENT IN A VIDEO DECODER

Abstract of the Disclosure

The invention is related to methods and apparatus that conceal errors in images of a corrupted video bitstream. One embodiment conceals errors in a missing or corrupted intra-coded macroblock by linearly interpolating data from other macroblocks that correspond to portions of the image above and below the missing or corrupted macroblock. One embodiment can utilize substitute motion vectors for a missing or corrupted predictive-coded macroblock. Another embodiment doubles the received motion vectors and references the doubled motion vectors to a previous-previous frame. Another embodiment adaptively selects which concealment or reconstruction technique is applied according to projected error estimates. Another embodiment conceals errors by replacing corrupted or missing data by combining concealment data in a weighted sum to reduce an estimated error.